

Inversion of the Three-Term Contingency

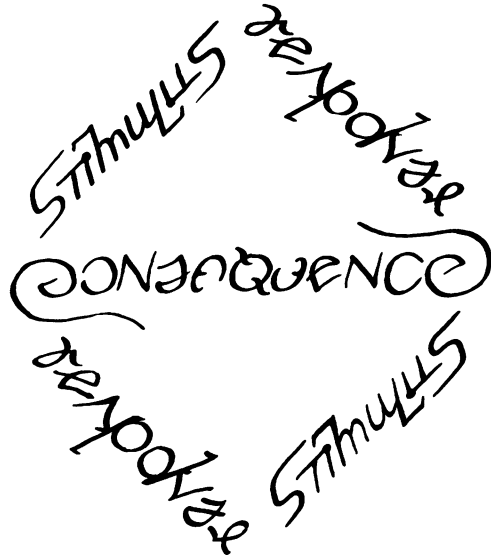
A. Charles Catania

University of Maryland Baltimore County

Consequences are central to the concept of the three-term contingency: a contingency relating responses to consequences operates in the presence of a discriminative stimulus. Consequences may in turn generate further responding (e.g., food sets the occasion for eating), and such responding may create new stimuli. These relations are embodied in the relations to the right. The figure might have been expanded by letting each term participate in multiple stimulus-response-consequence relations extending in all directions. In another arrangement, the terms might have been folded back upon themselves, but that version is more easily represented on a sphere than on a plane surface. Each of the terms is defined by the others, however, and to appreciate their intimate interrelations, it is sufficient to turn the page upside down.

This work, accomplished over several years of doodling at various committee meetings, was inspired by a book called "Inversions" (Kim, 1981). For Kim, "inversions" is a collective name for a variety of calligraphic constructions; it includes but is not restricted to those that can be read when turned upside down. (Some examples to be found in the book: "Gutenberg" in Gothic letters, which still reads "Gutenberg" when upside down; the word "figure" in black on a white ground, which upon examination becomes the word "figure" in white on a black ground; the word "mirror," which as mirror-image still reads as "mirror"; and several Escher-like alphabetic arrangements.)

In the development of the work, "stimulus" came first. Jeff Corey's demonstra-



tion that an inversion of "responses" was possible led to "response." "Consequence" followed inevitably soon after. This history is an inversion of the most likely evolutionary sequence: stimuli could not have had functional significance for organisms not already capable of responding (cf. Provine, 1976), and neither stimuli nor responses could have had functional significance independently of consequences (cf. Skinner, 1981).

REFERENCES

- Kim, S. (1981). *Inversions: a catalog of calligraphic cartwheels*. Petersborough, NH: BYTE Books.
- Provine, R. R. (1976). Development of function in nerve nets. In J. Fentress (Ed.), *Simpler networks and behavior*. Sunderland, MA: Sinauer.
- Skinner, B. F. (1981). Selection by consequences. *Science*, 213, 501-504.